



IN THE CLAIMS

Please amend the claims as follows:

1 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs exclusive access control,

wherein the first session management unit starts is configured to start the management of the first session processing steps when a management start request is received from the client or when a request other than the management start request is received.

2 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a first session management unit managing configured to manage a series of first session processing steps and incidental information in a state where a session with a client is maintained; and

a second transaction management unit managing configured to manage a series of indivisible second transaction processing steps performed by using the function that needs

exclusive access control,

wherein the ~~first~~ session management unit ~~starts~~ is configured to start the management of the ~~first~~ session processing steps when a management start request and a request other than the management start request are received from the client.

3 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a ~~first~~ session management unit ~~managing~~ configured to manage a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management unit ~~managing~~ configured to manage a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~first~~ session management unit ~~ends~~ is configured to end the management of the ~~first~~ session processing steps when a management end request is received from the client or when a predetermined time-out period expires.

4 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively updated by a client through authentication, comprising:

a ~~first~~ session management unit ~~managing~~ configured to manage a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is

maintained; and

a ~~second~~ transaction management unit ~~managing~~ configured to manage a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~first~~ session management unit ~~ends~~ is configured to end the management of the ~~first~~ session processing steps when a management end request is received from the client and a predetermined time-out period expires.

5 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a ~~first~~ session management unit ~~managing~~ configured to manage a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management unit ~~managing~~ configured to manage a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~second~~ transaction management unit ~~starts~~ is configured to start the management of the ~~second~~ transaction processing steps when a management start request is received from the client or when a request other than the management start request is received. .

6 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in

which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a ~~first~~ session management unit ~~managing~~ configured to manage a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management unit ~~managing~~ configured to manage a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~second~~ transaction management unit ~~starts~~ is configured to start the management of the ~~second~~ transaction processing steps when a management start request and a request other than the management start request are received from the client.

7 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a ~~first~~ session management unit ~~managing~~ configured to manage a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management unit ~~managing~~ configured to manage a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~second~~ transaction management unit ~~ends~~ is configured to end the management of the ~~second~~ transaction processing steps when a management end request is received from the client or when a predetermined time-out period expires.

8 (Currently Amended). An information-processing apparatus including a module which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, comprising:

a ~~first~~ session management unit ~~managing~~ configured to manage a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management unit ~~managing~~ configured to manage a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~second~~ transaction management unit ~~ends~~ is configured to end the management of the ~~second~~ transaction processing steps when a management end request is received from the client and a predetermined time-out period expires.

9 (Currently Amended). An information-processing apparatus according to claim 5, wherein the ~~second~~ transaction management unit ~~transmits~~ is configured to transmit, before ~~starting~~ the management of the ~~second~~ transaction processing steps has begun, a lock request to the module so that other clients than said client are inhibited from using the function that needs exclusive access control.

10 (Currently Amended). An information-processing apparatus according to claim 7, wherein the ~~second~~ transaction management unit ~~transmits~~ is configured to transmit, after ~~ending~~ the management of the ~~second~~ transaction processing steps has ended, an unlock request to the module so that inhibition of using the function by other clients than said client is canceled.

11 (Currently Amended). An information-processing apparatus according to claim 5, wherein the ~~second~~ transaction management unit ~~receives~~ is configured to receive a lock type and a management start request from the client, the lock type indicating a classification of a lock request being sent to the module, and the ~~second~~ transaction management unit ~~transmits~~ is configured to transmit the lock request, indicated by the received lock type, to the module so that other clients than said client are inhibited from using the function that needs exclusive access control.

12 (Currently Amended). An information-processing apparatus according to claim 5, wherein the ~~second~~ transaction management unit ~~receives~~ is configured to receive a lock type and a lock type change request from the client, the lock type indicating a classification of a lock request being sent to the module, and the ~~second~~ transaction management unit ~~transmits~~ is configured to transmit the lock request, indicated by the received lock type, to the module so that other clients than said client are inhibited from using the function that needs exclusive access control.

13 (Currently Amended). An information-processing apparatus according to claim 6, wherein the ~~second~~ transaction management unit ~~determines~~ is configured to determine a classification of a lock request being sent to the module, in accordance with a kind of a function request received from the client, and the ~~second~~ transaction management unit ~~transmits~~ is configured to transmit the lock request, indicated by the determined classification, to the module so that other clients than said client are inhibited from using the function that needs exclusive access control.

14 (Currently Amended). An information-processing apparatus according to claim 6, wherein the ~~second~~ transaction management unit transmits, before ~~starting~~ the management of the ~~second~~ transaction processing steps is started, a lock request to the module so that other clients than said client are inhibited from using the function that needs exclusive access control.

15 (Currently Amended). An information-processing apparatus according to claim 8, wherein the ~~second~~ transaction management unit ~~transmits~~ is configured to transmit, after ~~ending~~ the management of the ~~second~~ transaction processing steps has ended, an unlock request to the module so that inhibition of using the function by other clients than said client is canceled.

16 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a ~~first~~ session management step of managing a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management step of managing a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~first~~ session management step starts the management of the ~~first~~ session processing steps when a management start request is received from the client or when a request other than the management start request is received.

17 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a ~~first~~ session management step of managing a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management step of managing a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~first~~ session management step starts the management of the ~~first~~ session processing steps when a management start request and a request other than the management start request are received from the client.

18 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a ~~first~~ session management step of managing a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management step of managing a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~first~~ session management step ends the management of the ~~first~~ session processing steps when a management end request is received from the client or when a predetermined time-out period expires.



19 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a ~~first~~ session management step of managing a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management step of managing a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~first~~ session management step ends the management of the ~~first~~ session processing steps when a management end request is received from the client and a predetermined time-out period expires.

20 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a ~~first~~ session management step of managing a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management step of managing a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~second~~ transaction management step starts the management of the ~~second~~ transaction processing steps when a management start request is received from the client or

when a request other than the management start request is received.

21 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a ~~first~~ session management step of managing a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management step of managing a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~second~~ transaction management step starts the management of the ~~second~~ transaction processing steps when a management start request and a request other than the management start request are received from the client.

22 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a ~~first~~ session management step of managing a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management step of managing a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~second~~ transaction management step ends the management of the ~~second~~

transaction processing steps when a management end request is received from the client or when a predetermined time-out period expires.

23 (Currently Amended). An information-processing method for an information-processing apparatus which provides one or more clients with a function that needs exclusive access control in which user information stored in the information-processing apparatus is exclusively read or updated by a client through authentication, the method comprising:

a ~~first~~ session management step of managing a series of ~~first~~ session processing steps and incidental information in a state where a session with a client is maintained; and

a ~~second~~ transaction management step of managing a series of indivisible ~~second~~ transaction processing steps performed by using the function that needs exclusive access control,

wherein the ~~second~~ transaction management step ends the management of the ~~second~~ transaction processing steps when a management end request is received from the client and a predetermined time-out period expires.